County Medical Services Program

Newsletter

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Community Acquired Bacterial Meningitis

This article will concentrate on the recognition and diagnosis of this disease along with some of its basic biologic properties. Since it would most often be treated with hospitalization and IV antibiotics, the discussion of treatment will be minimal.

Bacterial meningitis has an incidence of 4-6 per 100,000 adults (greater than age 16). *Streptococcus pneumoniae* and *Neisseria meningitidis* are causative in 80% of cases. The triad of neck stiffness, fever and mental status changes will identify only 44% of cases in combination. Two of four elements, including headache in addition to the 3 already mentioned, will help to identify almost all cases, though some false positives (two of the four symptoms in the absence of bacterial meningitis) will result. Altered mental status is defined as a score of 14 or less on the Glasgow Coma Scale.

Lumbar puncture is the diagnostic test of choice for diagnosis of bacterial meningitis, but it does put the patient at risk for tonsillar herniation and for this reason neuroimaging prior to LP is recommended. Opening lumbar pressures are usually > 400 mm. using a water manometer. White blood cells in the CSF are usually between 100 and 10,000 per cc, CSF protein usually greater than 50 mg/dl and CSF glucose usually less than 40% of a simultaneously measured serum glucose level. Normal or marginally elevated white blood cell counts in CSF are indicative of a poor outcome.

For patients with meningococcal infections, close contacts of the patient must receive chemoprophylaxis to eradicate the carrier status.

Minimizing Contrast Induced Renal Failure In Outpatients

Risk factors for diminished renal function after giving contrast for x-ray studies include diabetes, volume depletion, heart failure, cirrhosis, nephrosis, hypertension, proteinuria, concomitant NSAID medications, and intra-arterial injection. Usually the creatinine will peak 3 days following the administration of contrast and a rise of 0.5 mg/dl or less is not usually associated with appreciable long term nephropathy. While universal measurement of creatinine before the administration of contrast is not required, certainly the presence of risk factors such as intra-arterial injection, diabetes, known kidney disease or proteinuria, hypertension or gout, should stimulate the measurement of kidney function prior to the procedure. If serum creatinine indicates a glomerular filtration rate of less than 50 cc per minute, an assumption for increased risk of contrast induced kidney injury should be made.

Preventive measures include hydration which can be done either intravenously or orally. The former has more often been shown to be effective than oral hydration. N-acetylcysteine may be of benefit, but the trials demonstrating benefit remain equivocal at best. Administration of diuretics have not been shown to be better than hydration alone, but small trials have shown benefit of ascorbic acid infusion or captopril for 3 days prior to exposure to contrast. Hemodialysis or hemofiltration may play a role in those with marginal baseline kidney function (< 30 ml/minute), but these individuals might require nephrology consultation prior to the study if time is available.

The radiology facility should have suggestions regarding low osmolar and iso-osmolar contrast agents that may be appropriate. Perhaps even alternative studies can occasionally be suggested that would avoid the need for the use of potentially nephrotoxic contrast agents altogether.

The suggestions made in the referenced article include measuring creatinine and estimating GFR in those at risk as noted above, minimizing doses of contrast when needed, withholding NSAID's and diuretics for 24 hours before and after administration of contrast, if possible,. Metformin shouild be withheld if the patient is at risk of nephropathy for at least 48 hours to allow for confirmation that renal function is not deteriorating after the study. Intravenous fluids beginning up to 12 hours before and continuing for 12 hours after the study may be of benefit in reducing kidney injury, but require observation to prevent fluid overload.

Barret, B., Parfrey, P., (2005) Preventing nephropathy induced by contrast medium NEJM 354(4): p. 379- 386.

CMS P&T Summary January 2006

Effective **April 1, 2006,** the following inhalers, which have been replaced by QVAR, will **require prior authorization.**

- **Pulmicort** Budesonide
- **Flovent & HVA** Fluticasone
- **Azmacort** Triamcinolone

Neurontin (gabapentin) requires prior authorization, but will process automatically if claims history shows contingent therapy (CT) of TCA's and carbamazepine # 90 in 30 days

The following medications require prior authorization with a maximum of 60 tablets in 30 days

- **Topamax** Topiramate
- **Keppra** Levetiracetam
- **Trileptal** Oxcarbazepine
- **Lamical** Lamotrigine

Approval is contingent therapy (CT) based: Tried/Failed TCA's, carbamazepine and gabapentin.

Chronic Daily Headache

Chronic headache is defined as the occurrence of a headache for more than 15 days per month for 3 months or longer. Three to five percent of the world population has daily or near-daily headaches. Risk factors include obesity, history of frequent headache (> 1 per week), caffeine consumption and overuse of acute-headache medications including analgesics, ergots and triptans. Over half of patients with chronic daily headaches have sleep or mood disorders which can exacerbate these headaches.

Primary headache disorder is a diagnosis of exclusion and secondary causes must be evaluated. Indications for neurologic imaging include an increase in frequency or severity of daily headaches over a 3 month period, neurologic symptoms, focal or lateralizing neurologic findings, papilledema, exacerbation or relief of the headache by arising or assuming the supine position, worsening with Valsalva, such as cough or sneeze, association with systemic symptoms or fever, or new onset of headache in a person over 50.

Primary headache is classified as prolonged (> 4 hours duration) or brief (< 4 hours). The prevalence in the population of headache medication-overuse was recently estimated at 1.4% and is more frequent in women (2.6%), especially women over age 50 (5%). Headaches may continue in individuals with medication-overuse headaches even after discontinuation of causative medications.

Lifestyle modifications that may prove helpful in treating chronic daily headaches include limiting or eliminating caffeine, engaging in regular exercise, and establishing regular meal and sleep schedules. Meditation and biofeedback may be of use though data to support these modalities comes from patients afflicted with tension rather than migraine or converted migraine headaches. Amytriptylene has been reported to reduce frequency of chronic headache in more than 50% of patients. Target daily dose is 50-100 mg per day. Other agents, gabapentin, topiramate and botulinum toxin, have shown effectiveness greater than placebo, but have not been used in comparison to amytriptylene. With the high rate of mood and sleep disorders, amytriptylene is often a good first choice in therapy. Preventive medications are titrated to minimal effective dose or maximal tolerated dose over a period of two months and then maintained for two additional months. If treatment results in a response, evidenced by a reduction in headaches by 50% or more, treatment is continued for three to six months longer.

Opioid therapy has not been shown to be successful with only 26% of patients treated in a specialty headache center achieving > 50% reduction in their headache frequency, despite close follow-up. In withdrawal of medications for treatment of headache medication-overuse, non-steroidal anti-inflammatories and dihydroergotamine mesylate are considered to have low potential for development of headache medication overuse. For patients taking opioids or butalbital medications, a period (one month) of tapering is recommended in withdrawing these medications. Other analgesics, ergotamine, and triptans can be discontinued abruptly. Giving 100 mg of prednisone for 5 days on withdrawal of medications for headache medication-overuse has been shown to be useful in reducing the period of withdrawal headaches from 36 hours to 18. Tizanidine (2-16 mg) at bedtime with a morning dose of non-steroidal anti-inflammatory medication resolved chronic daily headache in 62% of patients.

Relapse rates are significant whether a patient's headaches resolve or continue. They are estimated at near 40% between one and four years following successful treatment. In patients with frequent migraine, the American Academy of Neurology recommends "initiating preventive medication in patients with frequent headache or in those who overuse acute therapies."

Screening for HIV: Current Recommendations

The United States Preventive Services Task Force strongly recommends screening for HIV among those at increased risk for HIV infection.

These groups include men who have had sex with men after 1975, men and women having unprotected intercourse with multiple partners; past or present infected drug users; men and women who exchange sex for money or drugs or have sex partners who do; individuals whose past or present sex partners were HIV-infected, bisexual, or injection drug users; persons being treated for STD's or TB; and persons with a history of blood transfusion between 1978 and 1985.

There is no current recommendation for routine screening of the population.

USPTF (2005) Screening for HIV: Recommendation statement Annals of Internal Medicine Vol 143 (1): p. 32-37.

Look for the following CMS documents on the County's website

FORMULARY

Formulary (June 2005)	/Formulary.pdf
Quick Reference formulary	/QuickRef.pdf

FORMS

Primary Care TAR Forms	/CMSTARForm(CMS-19).pdf
Urgent Primary Care Voucher	/CMSUrgernPDform (CMS78).pdf

HANDBOOKS

Physician Handbook	CMS_Physician_Handbook.pdf
Hospital Handbook	/Hospital_Handbook_03.pdf
Ancillary Handbook	/Ancillary_HB_2003.pdf
Provider Newsletter	/06Vol6.pdf

(Previous volumes 1 through 5 available)

Provider Questionnaires: Provides additional medical information when requesting specific services

/CMSSleepApneaForm.pdf	/CMSWorkHistory.pdf	/CMSWorkHistory-Dental.pdf
/CMSHepatiticCWorksheet.pdf	/CMSPulmoAideWorksheet.pdf	/CMSIncontinenceWorksheet.pdf